

Application No. 10/817,526  
Response to Office Action

Customer No. 01933

Listing of Claims:

1. A method of joining a magnetic inner member and a magnetic outer member via a nonmagnetic materials together in a process wherein material, said method comprising:

5                   inserting a ring of the nonmagnetic material into an annular space formed between an the inner member and an the outer member so as to be tightly fitted therein; each made of magnetic material is fitted with a ring of nonmagnetic material, characterized in that the method comprises the steps of:

10                  bringing each of an inner and an outer peripheral surface of the ring of nonmagnetic material each into a semi-molten state; and

15                  bringing the inner and outer peripheral surfaces of said ring of nonmagnetic material into pressure contact with said inner and outer members, respectively, to join said inner and outer peripheral surfaces to said respective inner and outer members, respectively, by interfacial fusion.

2. (Currently Amended) A method of joining a magnetic inner member and a magnetic outer member via a nonmagnetic materials together as set forth in claim 1, characterized in that material by fitting a ring of the nonmagnetic material in an annular space

Application No. 10/817,526  
Response to Office Action

Customer No. 01933

5       formed between the inner member and the outer member, said method comprising:

bringing each of an inner and an outer peripheral surface of the ring of nonmagnetic material into a semi-molten state; and

10      bringing the inner and outer peripheral surfaces of said ring of nonmagnetic material into pressure contact with said inner and outer members, respectively, to join said inner and outer peripheral surfaces to said respective inner and outer members by interfacial fusion;

15      wherein the ring of nonmagnetic material is heated to a temperature sufficient to make it semi-molten, and the semi-molten ring of nonmagnetic material is then fitted into said annular space under pressure.

3. (Currently Amended) A method of joining a magnetic inner member and a magnetic outer member via a nonmagnetic materials together as set forth in claim 1, characterized in that material by fitting a ring of the nonmagnetic material in an annular space formed between the inner member and the outer member, said method comprising:

bringing each of an inner and an outer peripheral surface of the ring of nonmagnetic material into a semi-molten state; and

Application No. 10/817,526  
Response to Office Action

Customer No. 01933

5

bringing the inner and outer peripheral surfaces of said ring of nonmagnetic material into pressure contact with said inner and outer members, respectively, to join said inner and outer peripheral surfaces to said respective inner and outer members by interfacial fusion;

wherein the ring of nonmagnetic material is fitted under pressure into said annular space, and thereafter is heated by high-frequency induction heating to a temperature sufficient to make it semi-molten and is then compressed under pressure.

5

4. (Currently Amended) A method of joining a magnetic inner member and a magnetic outer member via a nonmagnetic materials together as set forth in claim 1, characterized in that material by fitting a ring of the nonmagnetic material in an annular space formed between the inner member and the outer member, said method comprising:

10

bringing each of an inner and an outer peripheral surface of the ring of nonmagnetic material into a semi-molten state; and bringing the inner and outer peripheral surfaces of said ring of nonmagnetic material into pressure contact with said inner and outer members, respectively, to join said inner and outer peripheral surfaces to said respective inner and outer members by interfacial fusion;

Application No. 10/817,526  
Response to Office Action

Customer No. 01933

15       wherein the ring of nonmagnetic material is fitted under pressure into said annular space, and thereafter a rotating body is pressed against an end face of said ring of nonmagnetic material whereby to generate a frictional heat then generated heats to heat said ring of nonmagnetic material to a temperature sufficient to make it semi-molten.